REMARKS

Favorable reconsideration of this application as amended is respectfully requested.

To advance the prosecution of this application, Claims 1,5-9, 20, 25 and 30 have been cancelled without prejudice or disclaimer. Independent Claims 2, 3, and 4 have been amended to clarify the manner in which these claims distinguish patentably from the prior art, including the references relied upon in the rejections. Dependent Claim 11 has been amended to avoid the objection to the drawings. Claims 21, 26 and 31 have been amended to avoid the recitation of subject matter now recited in independent Claims 2, 3, and 4, respectively. The dependency of Claims 22, 27, and 32 has been changed to comply with Applicant's preference. Finally, dependent Claims 21, 22, 23, 26, 27, 28, 31, 32, and 33 have been amended to recite amorphous metal oxide for consistency with the amended independent claims.

As recited in the independent claims, Applicant's invention requires a combination of the following features:

(1) a dielectric that comprises a polycrystalline oxide having a plurality of crystal grains and an

amorphous metal oxide present at the boundaries formed between the crystal grains;

(2) a metal material of the polycrystalline metal oxide that is different from a metal material of the amorphous metal oxide; and

(3) a crystallization temperature of the amorphous metal oxide that is higher than a crystallization temperature of the polycrystalline metal oxide.

In addition, the independent claims now require that the polycrystalline metal oxide comprises niobium pentoxide.

The Nishioka patent ('337 reference) relied upon in the rejection of independent Claims 2, 3, and 4 under 35 U.S.C. 102(b) does not teach the combination of features (1), (2), and (3) referred to above. In particular, the '337 reference discloses that amorphous STO 5 (or Ta_2O_5 112) is formed in a cavity formed in a crystal BST 4 (or BST 105), but amorphous STO 5 (or Ta_2O_5 112) is not formed in a crystal grain boundary of the crystal BST 4 (or Ta_2O_5 112), as can be seen from Fig. 2 (or Fig. 23) of the reference.

Accordingly, independent Claims 2, 3, and 4 distinguish patentably from the '337 reference. Since the '337 patent

does not teach or suggest the inventions recited in independent Claims 2, 3 and 4, the rejection of dependent claims under 35 U.S.C. 102(b) or 103(a) based on the '337 reference should not be maintained.

The Japanese reference to Suenaga is relied upon in the rejection of independent Claim 4 under 35 U.S.C. 102(b). The following information has been provided by Applicant after study of the disclosure of the Suenaga Japanese reference:

Suenaga discloses that fine amorphous grains 14 (or a dielectric film 63) is filled in a hollow of a surface of a ferroelectric film 12 (or a ferroelectric film 62 after crystallization). There is no disclosure of forming fine amorphous grains 14 (or the dielectric film 63) in a crystal grain boundary of the ferroelectric film 12 (or the ferroelectric film 62 after crystallization), as can been seen in Fig. 1 (or Fig. 7). Suenaga describes the hollow of the surface of the ferroelectric film 12 as grain boundaries, but this is apparently a false description technically. Suenaga does not teach the above-mentioned feature (1) of the independent claims and thus does not teach the combination of features (1), (2) and (3) recited in the independent claims.

The independent claims (and others) were also rejected under 35 U.S.C. 103(a) as being unpatentable over the Sakai Japanese reference in view of knowledge in the art as allegedly disclosed by Omori et al. or Yang et al., and further in view of knowledge in the art as allegedly disclosed by Matsui et al. Feature (2) in the independent claims referred to earlier requires a metal material of the polycrystalline metal oxide different from a metal material of the amorphous metal oxide. Applicant asserts, from a consideration of the disclosure of the Sakai Japanese reference, that both a material of crystal phase 15 and a material of the amorphous phase 16 are $SrTio_3$ formed by LPCVD using a source gas in which Ti is more than a Sr. Therefore, a crystal phase 15 and an amorphous phase 16 of different material cannot be formed by the method disclosed in Sakai. Accordingly, Sakai does not disclose the combination of features (1), (2), and (3) recited in the independent claims. This deficiency of Sakai is not cured by the secondary references, Omori et al., Yang et al., and Matsui et al.

In view of the fundamental deficiency of Sakai *vis-à-vis* the independent claims, any discussion of the relevance of the secondary references to dependent claims would be immaterial. However, the absence of such a discussion

should not be construed as an agreement with the assertions in the rejection regarding the alleged obviousness of combining teachings of the secondary references with teachings of Sakai.

Allowance of this application is believed to be in order.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (XA-10070) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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